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## Amendments to the Claims:

## 1. (Currently amended) A compound of formula (I):

$$R_1$$
 $N$ 
 $N$ 
 $N$ 
 $R_2$ 
 $(CH_2)_q$ 
 $A$ 
 $R_3$ 
 $(I)$ 

wherein:

A is a 5- or 6-membered heteroaromatic ring containing 1 to 4 heteroatoms selected from the group consisting of N, O, and S;

R<sub>2</sub> is of the formula (i):

$$(CH_2)r$$
—— $A'$ —— $R_4$  (i)

wherein:

A' is a 6-membered aromatic <u>ring</u> or heteroaromatic ring containing [[0]] <u>1</u> to 4 <u>nitrogen</u> atoms heteroatoms selected from the group consisting of N, O, and S;

r is an integer ranging from 1 to 20;

R<sub>4</sub> is selected from the group consisting of H; NH<sub>2</sub>; (CH<sub>2</sub>)<sub>S</sub>OH, wherein s is an integer ranging from 1 to 8; [[COOH;]] R<sub>14</sub>COOH, wherein R<sub>14</sub> is an alkylene or alkylidene group having 1 to 8 carbon atoms; halo, NHR<sub>8</sub>, NR<sub>8</sub>R<sub>9</sub>, NHCOR<sub>8</sub>, NR<sub>8</sub>COR<sub>9</sub>, SO<sub>3</sub>H and PO<sub>3</sub>H<sub>2</sub>;

R<sub>3</sub> is selected from the group consisting of H, NH<sub>2</sub>, R<sub>15</sub>COOH, wherein R<sub>15</sub> is an alkylene or alkylidene group having 1 to 8 carbon atoms, and (CH<sub>2</sub>)<sub>t</sub>OH, wherein t is an integer ranging from 1 to 8; halo, NHR<sub>8</sub>, NR<sub>8</sub>R<sub>9</sub>, NHCOR<sub>8</sub>, NR<sub>8</sub>COR<sub>9</sub>, SO<sub>3</sub>H and PO<sub>3</sub>H<sub>2</sub>;

q is an integer ranging from 1 to 8; and

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R<sub>1</sub> is a C<sub>1</sub>-C<sub>8</sub> alkanyl group, C<sub>2</sub>-C<sub>8</sub>-alkenyl- or C<sub>2</sub>-C<sub>8</sub>-alkynyl- group which is optionally substituted by -CN, -CH<sub>2</sub>NR<sub>6</sub>R<sub>7</sub>OH, -OR<sub>8</sub>, -NR<sub>6</sub>R<sub>7</sub>, -NHCOR<sub>8</sub>, NHCONR<sub>6</sub>R<sub>7</sub>, halogen, -OCOR<sub>8</sub>, -OCH<sub>2</sub>COOH, -OCH<sub>2</sub>COOR<sub>8</sub>, -SO<sub>2</sub>R<sub>5</sub>, -S-R<sub>5</sub>, -OCH<sub>2</sub>-CONR<sub>6</sub>R<sub>7</sub>, -OCH<sub>2</sub>CH<sub>2</sub>OH, -SO<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>-O-COR<sub>8</sub>, -OCH<sub>2</sub>-CH<sub>2</sub>-NR<sub>6</sub>R<sub>7</sub>, -SO<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>-OH, -CONHSO<sub>2</sub>R<sub>8</sub>, -CH<sub>2</sub>CONHSO<sub>2</sub>R<sub>8</sub>, -OCH<sub>2</sub>CH<sub>2</sub>OR<sub>8</sub>, -COOH, --COOR<sub>8</sub>, -CONR<sub>6</sub>R<sub>7</sub>, -CHO, -SR<sub>8</sub>, -SOR<sub>8</sub>, -SO<sub>2</sub>R<sub>8</sub>, -SO<sub>3</sub>H, -PO<sub>3</sub>H<sub>2</sub>, -SO<sub>2</sub>NR<sub>6</sub>R<sub>7</sub>, -OCH<sub>2</sub>-CH<sub>2</sub>OCOR<sub>8</sub>, -CH=NOH, -CH=NOR<sub>8</sub>, -COR<sub>9</sub>, -CH(OH)R<sub>9</sub>, -CH(OR<sub>8</sub>)<sub>2</sub>, -CH=CH-R<sub>10</sub>, -OCONR<sub>6</sub>R<sub>7</sub>,

R<sub>5</sub> is C<sub>1</sub>-C<sub>4</sub>-alkyl, optionally substituted by OH, OCOR<sub>8</sub>, NH<sub>2</sub>, NR<sub>6</sub>R<sub>7</sub> or NHCOR<sub>8</sub>, R<sub>6</sub>[[,]] and R<sub>7</sub>, and R<sub>8</sub> are each independently hydrogen, an optionally substituted C<sub>3-6</sub>-cycloalkyl group, a branched or unbranched alkyl-, alkenyl- or alkynyl group having up to 10 carbon atoms, which may optionally be substituted by hydroxy, phenyl, substituted phenyl, amino, amino substituted with C<sub>1</sub> to C<sub>8</sub> alkyl, or it denotes --(CH<sub>2</sub>)<sub>m</sub>-NHCOOR<sub>8</sub> wherein m=1, 2, 3 or 4;

 $R_8$  is hydrogen,  $C_1$ - $C_8$ -alkyl or  $C_2$ - $C_8$ -alkenyl or  $C_2$ - $C_8$ -alkynyl optionally substituted with  $CO_2H$ , a benzyl- or phenyl- group, which is optionally mono- or polysubstituted by  $OCH_3$ :

R<sub>9</sub> is C<sub>1</sub>-C<sub>8</sub>-alkyl or C<sub>2</sub>-C<sub>8</sub>-alkenyl or C<sub>2</sub>-C<sub>8</sub>-alkynyl optionally substituted with CO<sub>2</sub>H, optionally substituted phenyl, optionally substituted benzyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, and

R<sub>10</sub> is -COOR<sub>8</sub>, -CH<sub>2</sub>OR<sub>8</sub>, -CONR<sub>6</sub>R<sub>7</sub>, hydrogen, C<sub>1</sub>-C<sub>3</sub>-alkyl, optionally substituted phenyl, --CH<sub>2</sub>NR<sub>6</sub>R<sub>7</sub>;

and pharmaceutically acceptable salts, hydrates and prodrugs thereof.

- 2. (Original) The compound of claim 1, wherein at least one of  $R_3$  and  $R_4$  is independently selected from the group consisting of  $SO_3H$  and  $PO_3H_2$ .
- 3. (Previously presented) The compound of claim 1, wherein  $R_1$  is a  $C_1$ - $C_8$  alkanyl group,  $C_2$ - $C_8$ -alkenyl group or  $C_2$ - $C_8$  alkynyl group which is optionally substituted by  $NR_6R_7$ ,  $SO_3H$ , or  $-PO_3H_2$ .

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- 4. (Previously presented) The compound of claim 1, wherein A is selected from the group selected from the group consisting of pyridyl, thiophenyl, thiazolyl, and tetrazolyl.
  - 5. (Original) The compound of claim 1, wherein A' is phenyl.
  - 6. (Previously presented) The compound of claim 1, wherein:

 $R_1$  is a  $C_1$ - $C_8$  alkanyl group,  $C_2$ - $C_8$ -alkenyl group or  $C_2$ - $C_8$  alkynyl group which is optionally substituted by  $NR_6R_7$  or  $-SO_3H$ ;

A is selected from the group selected from the group consisting of pyridyl, thiophenyl, thiazolyl, and tetrazolyl; and

A' is phenyl.

- 7. (Original) The compound of claim 6, wherein at least one of  $R_3$  and  $R_4$  is independently selected from the group consisting of  $SO_3H$  and  $PO_3H_2$ .
- 8. (Currently amended) The compound of claim 1, wherein said compound is selected from the group consisting of:
  - 3-[2-(4-Aminophenyl)ethyl]-1-propyl-8-[(3-pyridyl)methyl]xanthine;
  - 3-[2-(4-Aminophenyl)ethyl]-1-propyl-8-[(4-thiazolyl)methyl]xanthine;
  - 3-[2-(4-Aminophenyl)ethyl]-1-propyl-8-[(thiophen-2-yl)methyl]xanthine;
  - 3-[2-(4-Aminophenyl)ethyl]-1-propyl-8-[(1*H*-tetrazol-5-yl)methyl]xanthine; and pharmaceutically acceptable salts, hydrates and prodrugs thereof.
  - 9-11. (Canceled)
- 12. (Original) A composition comprising a compound of claim 1 in a pharmaceutically acceptable carrier.
  - 13. (Currently amended) A compound of formula (I):

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$$R_1$$
 $N$ 
 $NH$ 
 $(CH_2)_q$ 
 $R_3$ 
 $(I)$ 

wherein:

A is a 5- or 6-membered aromatic ring;

R<sub>2</sub> is of the formula (i):

$$(CH2)r ------A' -----R4 (i)$$

wherein:

A' is a 6-membered aromatic ring or a heteroaromatic ring containing [[0]] 1 to 4 <u>nitrogen</u> atoms heteroatoms selected from the group consisting of N, O, and S;

r is an integer ranging from 1 to 20;

R<sub>4</sub> is selected from the group consisting of NH<sub>2</sub>, halo, NHR<sub>8</sub>, NR<sub>8</sub>R<sub>9</sub>, NHCOR<sub>8</sub>, NR<sub>8</sub>COR<sub>9</sub>, [[COOH,]] SO<sub>3</sub>H and PO<sub>3</sub>H<sub>2</sub>;

R<sub>3</sub> is selected from the group consisting of H, NH<sub>2</sub>, R<sub>15</sub>COOH, wherein R<sub>15</sub> is an alkylene or alkylidene group having 1 to 8 carbon atoms, and (CH<sub>2</sub>)<sub>t</sub>OH, wherein t is an integer ranging from 1 to 8; halo, NHR<sub>8</sub>, NR<sub>8</sub>R<sub>9</sub>, NHCOR<sub>8</sub>, NR<sub>8</sub>COR<sub>9</sub>, SO<sub>3</sub>H and PO<sub>3</sub>H<sub>2</sub>;

q is an integer ranging from 1 to 8; and

R<sub>1</sub> is a C<sub>1</sub>-C<sub>8</sub> alkanyl- group, C<sub>2</sub>-C<sub>8</sub>-alkenyl-, or C<sub>2</sub>-C<sub>8</sub>-alkynyl- group which is optionally substituted by -CN, -CH<sub>2</sub>NR<sub>6</sub>R<sub>7</sub>OH, -OR<sub>8</sub>, -NR<sub>6</sub>R<sub>7</sub>, -NHCOR<sub>8</sub>, -NHCONR<sub>6</sub>R<sub>7</sub>, halogen, -OCOR<sub>8</sub>, -OCH<sub>2</sub>COOH, -OCH<sub>2</sub>COOR<sub>8</sub>, -SO<sub>2</sub>R<sub>5</sub>, -S-R<sub>5</sub>, -OCH<sub>2</sub>-CONR<sub>6</sub>R<sub>7</sub>, -OCH<sub>2</sub>CH<sub>2</sub>OH, -SO<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>-O-COR<sub>8</sub>, -OCH<sub>2</sub>-CH<sub>2</sub>-NR<sub>6</sub>R<sub>7</sub>, -SO<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>-OH, -CONHSO<sub>2</sub>R<sub>8</sub>, -CH<sub>2</sub>CONHSO<sub>2</sub>R<sub>8</sub>, -OCH<sub>2</sub>CH<sub>2</sub>OR<sub>8</sub>, -COOH, -COOR<sub>8</sub>, -CONR<sub>6</sub>R<sub>7</sub>, -CHO, -SR<sub>8</sub>, -SOR<sub>8</sub>, -SO<sub>2</sub>R<sub>8</sub>,

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-SO<sub>3</sub>H, -PO<sub>3</sub>H<sub>2</sub>, -SO<sub>2</sub>NR<sub>6</sub>R<sub>7</sub>, -OCH<sub>2</sub>-CH<sub>2</sub>OCOR<sub>8</sub>, -CH=NOH, -CH=NOR<sub>8</sub>, -COR<sub>9</sub>, -CH(OH)R<sub>9</sub>, -CH(OR<sub>8</sub>)<sub>2</sub>, -CH=CH-R<sub>10</sub>, -OCONR<sub>6</sub>R<sub>7</sub>,

R<sub>5</sub> is C<sub>1</sub>-C<sub>4</sub>-alkyl, optionally substituted by OH, OCOR<sub>8</sub>, NH<sub>2</sub>, NR<sub>6</sub>R<sub>7</sub> or NHCOR<sub>8</sub>,

 $R_6$  and  $R_7$  [[-  $R_8$ ]] are each independently hydrogen, an optionally substituted  $C_{3-6}$ -cycloalkyl group, a branched or unbranched alkyl-, alkenyl- or alkynyl group having up to 10 carbon atoms, which may optionally be substituted by hydroxy, phenyl, substituted phenyl, amino, amino substituted with  $C_1$ - $C_8$  alkyl, or it denotes -(CH<sub>2</sub>)<sub>m</sub>—NHCOOR<sub>8</sub> wherein m=1, 2, 3 or 4;

 $R_8$  is hydrogen,  $C_1$ - $C_8$ -alkyl or  $C_2$ - $C_8$ -alkenyl or  $C_2$ - $C_8$ -alkynyl optionally substituted with  $CO_2H$ , a benzyl- or phenyl- group, which is optionally mono- or polysubstituted by  $OCH_3$ ;

 $R_9$  is  $C_1$ - $C_8$ -alkyl or  $C_2$ - $C_8$ -alkenyl or  $C_2$ - $C_8$ -alkynyl optionally substituted with  $CO_2H$ , optionally substituted phenyl, optionally substituted benzyl,  $C_3$ - $C_6$ -cycloalkyl, and

 $R_{10}$  is  $-COOR_8$ ,  $-CH_2OR_8$ ,  $-CONR_6R_7$ , hydrogen,  $C_1$ - $C_3$ -alkyl, optionally substituted phenyl,  $--CH_2NR_6R_7$ ;

and pharmaceutically acceptable salts, hydrates, and prodrugs thereof.

- 14. (Previously presented) The compound of claim 13, wherein A is phenyl.
- 15. (Previously presented) The compound of claim 13, wherein A' is phenyl.
- 16. (Currently amended) The compound of claim 13, wherein:

A is phenyl;

A' is phenyl;

r is 2;

 $R_4$  is selected from the group consisting of NH<sub>2</sub>, [[COOH]], NHCOR<sub>8</sub>, and SO<sub>3</sub>H;

 $R_3$  is selected from the group consisting of H, NH<sub>2</sub>, halo, SO<sub>3</sub>H, and NHCOR<sub>8</sub>;

q is 1; and

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 $R_1$  is a  $C_1$ - $C_8$  alkanyl group optionally substituted by  $-OR_8$ ,  $-NR_6R_7$ , or  $-SO_3H$ .

- 17. (Currently amended) The compound of claim 13, wherein said compound is selected from the group consisting of:
  - 3-[2-(4-Aminophenyl)ethyl]-8-benzyl-1-propylxanthine;
  - 3-[2-(4-Aminophenyl)ethyl]-1-propyl-8-(4-sulfonoxybenzyl)xanthine;
  - 3-[2-(4-Aminophenyl)ethyl]-8-benzyl-1-(3-methoxypropyl)xanthine;
  - 3-[2-(4-Aminophenyl)ethyl]-8-benzyl-1-(3-dimethylamino)propylxanthine;
  - 3-[2-[4-(6-Aminohexanoyl)aminophenyl]ethyl]-8-benzyl-1-propylxanthine;
  - 8-Benzyl-1-propyl-3-[4-(4-sulfonoxyphenyl)butyl]xanthine;
  - 8-Benzyl-1-propyl-3-[2-(4-sulfonoxyphenyl)ethyl]xanthine;
  - 3-[2-(4-Aminophenyl)ethyl]-8-benzyl-1-(3-sulfonoxypropyl)xanthine;
  - 3-[2-(4-Aminophenyl)ethyl]-8-(4-fluorobenzyl)-1-propylxanthine;
  - 8-(2-Acetaminobenzyl)-3-[2-(4-aminophenyl)ethyl]-1-propylxanthine;
  - 8-(2-Aminobenzyl)-3-(2-phenylethyl)-1-propylxanthine;
  - 8 Benzyl-3-[2-(3 carboxyphenyl)ethyl] 1 propylxanthine;
  - 3-[2-(4-Aminophenyl)ethyl]-8-benzyl-1-(8-sulfo<del>noxy</del>octyl)xanthine;
  - 3-[2-(4-Aminophenyl)ethyl]-8-benzyl-1-(5-sulfonoxypentyl)xanthine;
- 3-[2-(4-Aminophenyl)ethyl]-8-benzyl-1-(5-sulfo<del>noxy</del>pentyl)xanthine; and pharmaceutically acceptable salts, hydrates and prodrugs thereof.
- 18. (Previously presented) A composition comprising a compound of claim 13 in a pharmaceutically acceptable carrier.
  - 19. (New) A compound selected from the group consisting of:
  - 8-Benzyl-3-[2-(3-carboxyphenyl)ethyl]-1-propylxanthine;
  - 3-[2-(2-carboxyphenyl)ethyl]-8-(3-fluorobenzyl)-1-propylxanthine;
  - $3\hbox{-}[2\hbox{-}(2\hbox{-}carboxyphenyl)\hbox{ethyl}]\hbox{-}8\hbox{-}(3\hbox{-}nitrobenzyl)\hbox{-}1\hbox{-}propylxanthine};$

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3-[2-(2-carboxyphenyl)ethyl]-1-propyl-8-[(2-pyridyl)methyl]xanthine; and

3-[2-(2-carboxyphenyl)ethyl]-1-propyl-8-[(2-pyridyl)methyl]xanthine; and pharmaceutically acceptable salts and prodrugs thereof.

20. (New) A composition comprising a compound of claim 19 in a pharmaceutically acceptable carrier.